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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,046	09/28/2001	Karl Mautz	SC0194WD	4300

7590 08/15/2003

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EXAMINER
BLUM, DAVID S

ART UNIT	PAPER NUMBER
2813	

DATE MAILED: 08/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/966,046	MAUTZ ET AL.	
	Examiner	Art Unit	
	David S Blum	2813	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 July 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2,10,31-33 and 37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *10 and 37* is/are allowed.

6)☒ Claim(s) *2 and 31-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *10* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

This action is in response to Amendment C paper #11, filed 07/28/03.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 2 and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katsuyuki (JP 58-169149) in view of Marx (US006261382B1).

Katsuyuki teaches the device of claims 2 and 31-32 except for the identification marks being in the semiconductor. Katsuyuki teaches a magnetic means (film 3) having a pattern (2) is formed on a glass substrate that may be on a semiconductor wafer (abstract, constitution) used to provide information such as lot number (identification). The pattern (2, figure 2) shows a series of regions and non-magnetic regions. The magnetic film is provided at the wafer peripheral or proximate the semiconductor edge (abstract, purpose) as in claim 32. Information (identification) is written in the film (abstract, constitution).

Regarding the limitation of "magnetic ions that are implanted", this is a product by process limitation and given no patentable weight. The ions need not be implanted to anticipate the device. Even though product-by-process claims are limited by and defined by the process, determination of Patentability is based upon the product itself. The patenability of a product does not depend on its method of production." MPEP 2113

Marx, forms an identification mark, but teaches that the mark is better placed in a depression to avoid being ruined during polishing steps (column 1 lines 36-40) and this also improves the varnish coating (column 2 lines 20-21) (covered with a film layer as in claim 31).

It would be obvious to one skilled in the requisite art at the time of the invention to modify Katsuyuki by placing the magnetic ion identification below the wafer surface for it's own protection from subsequent processing steps as taught by Marx.

3. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katsuyuki (JP 58-169149) in view of Marx (US006261382B1) and in further view of Oishi (US006004405A).

Katsuyuki and Marx teach the device of claim 33 as recited above except for placing the identification mark (information for identification) on the inner region of a wafer where

the vacuum chuck would engage the wafer. Oishi teaches forming an identification mark on the wafer side (figure 1A) where it will not interfere with the effective area of the wafer. Therefore it is obvious that the area where the vacuum chuck is employed may be used as the mark area as it is not an effective area (active area) of the wafer, but a peripheral area (constitution). Katsuyuki teaches forming the magnetic means in a peripheral area on the wafer. Thus Katsuyuki is teaching that the magnetic means be placed in an area on the wafer (surface or side) and Oishi teaches that this can be any area which is not an effective (active) area. The area where the chuck engages the wafer in the instant application is a peripheral area on the wafer and not an active area. Regarding the limitation where the vacuum chuck has magnetic reading capabilities; that is a limitation on the reading apparatus, not the semiconductor device and is given no weight. The functional use of the magnetic means does not change whether or not the vacuum chuck can read the magnetic means or a separate piece on the apparatus is used (see MPEP 2114 regarding functional language).

It would have been obvious to one skilled in the requisite art at the time of the invention to modify Katsuyuki by including the vacuum chuck area as part of the peripheral area as taught by Oishi with reasonable expectation of producing an identification mark that is in a peripheral region and does not interfere with the effective production area.

Allowable Subject Matter

4. Claims 10, and 37 are allowed.

5. The following is an examiner's statement of reasons for allowance:

Claim 10 limits the formation of the device to forming the magnetic means by ion implantation. Katsuyuki forms the magnetic means by deposition on the substrate but does not teach or suggest implanting the magnetic means into the substrate.

Claim 37 is allowed as being dependent upon allowed claim 10.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

6. Applicant's arguments with respect to claims 2 and 31-33 have been considered but are moot in view of the new ground(s) of rejection.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Blum whose telephone number is (703)-306-9168 and e-mail address is David.blum@USPTO.gov .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead Jr., can be reached at (703)-308-4940. Our facsimile number for Before-Final Communications is (703)- 872-9318 and for After-Final Communications is (703)- 872-9319. The facsimile number for customer service is (703)-872-9317. Our receptionist's number is (703)-308-0956.

David S. Blum

August 14, 2003